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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,517	02/21/2002	Walter Brandenburger	22750/527	1022

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KENYON & KENYON
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER	
ROSENBERG, LAURA B	

ART UNIT	PAPER NUMBER
3616	

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/081,517	BRANDENBURGER, WALTER	
	Examiner	Art Unit	
	Laura B Rosenberg	3616	

-- The MAILING DATE of this communication appears on th cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 September 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This office action is in response to the amendment filed on September 8, 2003, in which claim 2 was canceled and claims 1, 4, 6, 10, 12, 16, and 17 are amended.

Information Disclosure Statement

2. Several of the references on the Information Disclosure Statement filed September 8, 2003 have not been considered because they are duplicates of prior art references that were already cited by the examiner in the Notice of References Cited in the examiner's first office action (Paper No. 5).

Claim Objections

3. Claim 1 is objected to because of the following informalities: the parenthesis used in the phrases "(in the cylinder transverse combination)" and "(in the cross combination)" should be removed because they are not necessary. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1 and 3-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al. (5,709,394) in view of Heyring (5,480,188). In regards to claims 1, 3, 6-9, and 12, Martin et al. disclose a hydropneumatic, level-regulated axle suspension for front (#56) and rear (#55) axles on a vehicle (#1) comprising double-acting hydraulic suspension cylinders (#17, 18, 23, 24), wherein the axle suspension for the front axle and the rear axle is designed as a reversible double-function axle suspension, so that each axle (#55, 56) is switchable as an oscillating axle or as a stabilizing axle (best seen in figure 4; column 4, lines 62-67; column 9, lines 28-38), the switching being alternating so that switching one axle as an oscillating axle results in simultaneous switching of the other axle as a stabilizing axle. Martin et al. do not specifically disclose the cylinders connected to pressure accumulators or hydraulic shock absorber elements inserted into connected lines to the accumulators. Heyring teaches a hydropneumatic, level-regulated axle suspension for front and rear axles on a vehicle (#5) comprising double-acting hydraulic suspension cylinders (#13, 14, 17, 18, 41- 44), whose cylinder spaces (#13a, 14a, 17a, 18a, 41a- 44a) are each connected to a first pressure accumulator (#21, 22, 25, 26, 50-53) and an additional pressure accumulator (#21, 22, 25- 27, 30, 50-55) and whose annuli on the piston side (13b, 14b, 17b, 18b, 41b- 44b) are connected to a second pressure accumulator (#27, 30, 54, 55). In addition, hydraulic shock absorber elements are inserted into connecting lines to the accumulators (column 6, lines 1-4). It would have been obvious to one skilled in the art at the time that the invention was made to modify the suspension of Martin et al. such that it comprised accumulators and hydraulic shock absorbing elements as claimed in

view of the teachings of Heyring so as to provide resilience in the suspension and resist shock loading in the event that the axles are thrust down (Heyring: column 5, lines 32-36, 42-47; column 6, lines 1-4).

In regards to claim 4, Martin et al. disclose the axles being switched to oscillating axles when a load is reduced on that axle and a stabilizing axle when a load is increased on that axle. Specifically, when the vehicle encounters uneven terrain, the load is increase on one of the axles, that axle becoming the stabilizing axle while the other axle becomes the oscillating axle.

In regards to claims 5 and 11, Martin et al. disclose the axle suspension of the stabilizing axle being blocked (column 4, lines 59-67; column 5, lines 25-33). Martin et al. does not disclose the axles suspensions being blocked by isolating the suspension accumulator. Heyring teaches isolating the suspension accumulators when under an increased load and needed to stabilize the axle (column 5, lines 57-67). It would have been obvious to one skilled in the art at the time that the invention was made to modify the suspension of Martin et al. such that it comprised an isolation of the accumulator as claimed in view of the teachings of Heyring so as to reduce the resilience of the axle when it is under an increase load (Heyring: column 5, lines 57-67).

In regards to claim 10, Martin et al. disclose the cylinder space of one suspension cylinder being connected to the annulus of another suspension cylinder (via connecting lines #30, 31). Martin et al. does not disclose an accumulator of the cylinder space connectable to the annulus of another suspension cylinder. Heyring teaches the cylinder space (#13a, 14a, 17a, 18a) of one suspension cylinder and the associated

accumulator (#21, 22, 25, 26) being connectable to the annulus (#13b, 14b, 17b, 18b) of another suspension cylinder. It would have been obvious to one skilled in the art at the time that the invention was made to modify the suspension of Martin et al. such that it comprised a connection between cylinder spaces, accumulators, and annulus spaces as claimed in view of the teachings of Heyring so as to control pressure between cylinders through the use of the accumulators.

In regards to claim 13, Martin et al. disclose switching from oscillating axle suspension to stabilizing axle suspension being done as a function of the pressure in the cylinder spaces. Specifically, the pressure is determined and controlled by the hydraulic control means (#26), the pressure relief valve (#45), the electrical command means (#49), and the sensor (#91).

In regards to claim 14, Martin et al. disclose the switching being done at approximately the same pressures in the cylinder spaces and the annuli of the suspension cylinders. Specifically, the electrical command means (#49) and the sensor (#91) control the control valves (#38, 39, 85) and the control valves control the connection and disconnections of the cylinders. Thus, the switching would always be accomplished at approximately the same pressure.

In regards to claim 15, Martin et al. disclose the design of the front and rear axle suspensions being identical.

In regards to claim 16, Martin et al. disclose that the axles (#55, 56) may be pressed against stops (#A, B, D, E) for the purpose of blocking the suspension and they may be secured.

In regards to claim 17, Martin et al. disclose the blocked cylinders being regulated and kept at the switchover pressure level by a pressure regulating valve (#38, 39, 85). Martin et al. do not disclose using this valve in the same manner for an accumulator. Heyring teaches pressure regulating means (column 6, lines 5-38) for use with accumulators. It would have been obvious to one skilled in the art at the time that the invention was made to modify the suspension of Martin et al. such that it comprised a pressure regulating valve as claimed in view of the teachings of Heyring so as to vary or stop the flow of fluid between relevant cylinders (Heyring: column 6, lines 14-21).

Response to Arguments

6. The examiner thanks the applicant for clarifying the content of claim 12. While claim 12 was originally rejected as being unpatentable over Martin et al. in view of Heyring in the previous office action, the examiner is now able to more specifically apply the prior art rejection to claim 12.

7. Applicant's arguments filed September 8, 2003 have been fully considered but they are not persuasive. While the examiner appreciates and understands the applicant's intent behind the phrase "switchable as an oscillating axle (in a cylinder transverse combination) or as a stabilizing axle (in a cross combination)", the claim remains broad enough that the Martin et al. in view of Heyring rejection still reads on this independent claim (and its dependent claims). Specifically, any axle could be a "stabilizing axle in cross combination" assuming that the axle provides support across the vehicle. In response to applicant's arguments against the references individually

(bottom of page 12), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B Rosenberg whose telephone number is (703) 305-3135. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (703) 308-2089. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Laura B. Rosen

LBR

11/25/03

PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600